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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,809	09/29/2003	Tae-Kyung Kim	02-ASD-271 (EM)	2210
200	7590	06/22/2006	EXAMINER	
EATON CORPORATION EATON CENTER 1111 SUPERIOR AVENUE CLEVELAND, OH 44114			PATEL, VISHAL A	
			ART UNIT	PAPER NUMBER
			3673	

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/673,809

Applicant(s)

KIM, TAE-KYUNG

Examiner

Vishal Patel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-26 is/are allowed.
- 6) ☒ Claim(s) 1-18 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 9-10, 11, 13, 15-18 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Mercer et al (US. 3,330,567).

Mercer discloses a method of sealing at a juncture of three members at assembly comprising:

The step of forming a one piece seal of elastically deformable material having a first (62), second (66) and third (50 or 48) portions each extending in a discrete direction from a common region (region having 70 and 72) thereof and configured for sealing the juncture of the three member (members 12, 14 and 28). The step of forming a strain distributor (72 or 70) of material significantly less deformable than the first, second and third portions and embedding the distributor in the common region. The step of disposing the seal with the first, second and third portion sealing on the three members (first 62a, second portion below 46 and contacting 14 and third is lip 38). The strain distributor is disposed at the juncture of the three members (72 or 70 is disposed at the juncture of 62a, 66 and 50).

The distributor is disposed in the common region at a juncture of two of the first, second and third portions thereof (the distributor 72 or 70 is disposed at a juncture of at least two of the portions 62a and 50 or 62a and 66 or 50 and 66).

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The distributor is formed of material having a hardness of at least 10 on the Shore A greater than the common region (this is the case since the spring 72 and cable 70 are made of steel and the seal is formed of rubber or elastomeric material).

The distributor is formed of one of elastomeric, metallic and plastic material.

The step of forming a one-piece seal includes molding (column 5, lines 30-42).

The step of disposing the distributor includes insert molding (column 5).

The step of forming a one-piece seal includes molding a member of elastomeric member (column 5).

The step of disposing includes forming an extension on one of the members (extension 46).

The extension includes interdigitating the extension with one of the first, second and third portions (interdigitating with the second portion).

The above method produces the seal as claimed in claims 11, 13 and 15-18. The method limitations of insert molded is considered product by process limitation, which is given little patentable weight in an apparatus claim.

3. Claims 11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Rodenkerich (US. 5,275,420).

Rodenkerich discloses a seal having a common region (region where three portions meet, near 86) formed of elastically deformable material, at least three projections (first portion 64, second portion 18 and third portion 24) formed integrally with the common region and extending outwardly therefrom each in a discrete direction, a strain distributor (RTV silicone) formed of material significantly stiffer than the central portion (this is the case since RTV silicone are know

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to have hardness on shore A of 30 to 80 and silicone rubber are know to have hardness on shore A of 5 to 50, evidence is showed by Cann, US. 6,471,095 B1 and Wright, RE38,814E) and three projections and embedded in the common region (region near 86, the distributor is embedded in the common region). The distributor is formed of plastic material (RTV silicone is a resin material, hence a plastic material). The strain distributor is capable of being arranged at the juncture of the three assembled members.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mercer.

Mercer discloses the claimed invention except that the elastomeric material having a durometer not greater than 75 on the shore A scale. Discovering an optimum range of a result effective variable involves only routine skill in the art. In re Kulling, 895 F.2d 1147, 14 USPQ 2d 1056. Without the showing of some unexpected result. Since applicant has not shown some unexpected result the inclusion of this limitation is considered to be a matter of choice in design. It would have been obvious to one having ordinary skill in the art at the time the invention was made to the elastomeric material to be of a hardness no greater than 75 on shore A scale to provide mechanical expedience.

***Allowable Subject Matter***

6. Claims 19-26 are allowable.

***Response to Arguments***

7. Applicant's arguments filed 4/12/06 have been fully considered but they are not persuasive.

Applicants' argument that Mercer fails to disclose the strain distributor disposed in a common region at a junction of three portions is not persuasive because the strain distributor is disposed at a common region at a junction of three portions (66, 62 and 50 or 48). Furthermore the strain distributor is disposed at a junction of three members (12, 14 and 28).

Applicants' argument that Rodenkirch does not teach that the strain distributor is embedded in the common region is not persuasive because the strain distributor is disposed in a groove or recess (86) that is formed between the first, second and third portions.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

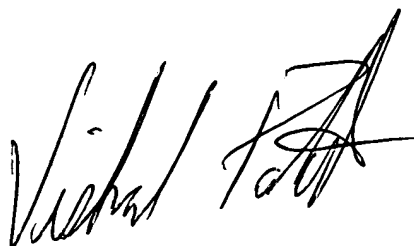
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia L. Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP  
June 19, 2006

A handwritten signature in black ink, appearing to read 'Vishal Patel', with a stylized flourish at the end.

Vishal Patel  
Primary Examiner  
Tech. Center 3600